

University of Groningen

Efficient Energy Transfer in Supramolecular, Hydrogen-Bonded Polypyridylruthenium-Osmium Complexes

Rau, Sven; Schäfer, Bernhard; Schebesta, Sebastian; Grüßing, André; Poppitz, Wolfgang; Walther, Dirk; Duati, Marco; Browne, Wesley R.; Vos, Johannes G.

Published in:
European Journal of Inorganic Chemistry

DOI:
[10.1002/ejic.200390193](https://doi.org/10.1002/ejic.200390193)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2003

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Rau, S., Schäfer, B., Schebesta, S., Grüßing, A., Poppitz, W., Walther, D., Duati, M., Browne, W. R., & Vos, J. G. (2003). Efficient Energy Transfer in Supramolecular, Hydrogen-Bonded Polypyridylruthenium-Osmium Complexes. *European Journal of Inorganic Chemistry*, (8), 1503-1506.
<https://doi.org/10.1002/ejic.200390193>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

SUPPORTING INFORMATION

Title: Efficient Energy Transfer in Supramolecular, Hydrogen-Bonded Polypyridylruthenium-Osmium Complexes

Author(s): Sven Rau,* Bernhard Schäfer, Sebastian Schebesta, André Grüßing, Wolfgang Poppitz, Dirk Walther, Marco Duati, Wesley R. Browne, Johannes G. Vos

Ref. No.: I02696

Determination of A_0 and I_{NQ}

$c(\text{Rutm}) = x * c(\text{Osby3})$	mol/L	
	A_0	I_{NQ}
x	$c(\text{Rutmbbi})$	@630nm
0	0	0.31987
0.1	9.48E-07	1.91512
0.33	3.16E-06	5.25557
0.5	4.74E-06	7.93729
0.67	6.32E-06	11.58807
1	9.48E-06	15.68656
1.5	1.42E-05	22.36063
2	1.90E-05	30.08187
2.5	2.37E-05	34.60491

Determination of A and I_Q

$c(\text{Rutm}) = x * c(\text{Osmc})$	mol/L	
	A_0	I_Q
x	$c(\text{Rutmbbi})$	@630nm
0	0	0.2562
0.1	9.48E-07	0.33965
0.33	3.16E-06	0.65053
0.5	4.74E-06	0.9911
0.67	6.32E-06	1.52757
1	9.48E-06	3.33764
1.5	1.42E-05	9.85509
2	1.90E-05	17.70058
2.5	2.37E-05	23.26459

Determination of K and $\log_{10}K$

x	[A]	K	$\log_{10}(K)$
0	mol/L	L/mol	
0.1	1.60E-07	5.66E+05	5.75
0.33	3.73E-07	1.12E+06	6.05
0.5	5.64E-07	1.40E+06	6.15
0.67	7.93E-07	1.76E+06	6.25
1	1.92E-06	2.05E+06	6.31
1.5	5.96E-06	1.11E+06	6.05
2	1.06E-05	6.96E+05	5.84
2.5	1.52E-05	5.89E+05	5.77

$$A=\frac{A_0\cdot I_{\mathcal{Q}}\cdot x}{I_{N\mathcal{Q}}}$$

$$\mathbf{x} = {}^{20}/_{21}$$

$$K=\frac{A_0-A}{A\cdot (B_0-A_0+A)}$$